

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-9 (cancelled)

10. (new) A method for increasing the size of starch grains and/or the starch content of a plant or of a plant part, in which a gene of a starch phosphorylase in cells of the plant is switched off.

11. (new) A method for obtaining plants or plant parts that produce starch grains of increased size or with higher starch content, said method comprising switching off a gene of a starch phosphorylase in cells of the plant.

12. (new) The method according to Claim 11, comprising the steps of switching off, by inserting nucleotide(s), a gene coding for said endogenous starch phosphorylase in a plant cell, and regenerating the plant from the transformed cell, said transgenic plant thus obtained having starch grains of increased size, and/or a higher starch content.

13. (new) The method according to claim 10, in which the plant is potato, broad bean, beet, spinach, pea, wheat, maize or rice.

14. (new) A plant cell liable to be obtained by the method according to claim 11.

15. (new) A transgenic plant comprising a plant cell according to Claim 14.

16. (new) A seed obtained from the plant according to Claim 15, characterized in that it is of increased size, and/or it has an altered starch content.

17. (new) A method for producing a plant with an altered size of starch grains and/or altered starch content, comprising producing said plant with a SEQ ID N°2.

18. (new) The method according to Claim 17, characterized in that the plant obtained is selected from potato, broad bean, beet, spinach, pea, wheat, maize or rice.